

What is claimed is:

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1. In a gaming machine including a master gaming controller, a display device and a memory device, a method of capturing a game history, the method comprising:
 - generating a sequence of game presentation frames used in a video game presentation controlled by the master gaming controller on the gaming machine wherein each game presentation frame is stored in a frame buffer;
 - selecting a game presentation frame stored in the frame buffer from the sequence of generated game presentation frames;
 - incorporating frame data from the selected game presentation frame into a game history frame;
 - storing the game history frame in the memory device.
2. The method of claim 1, further comprising:
 - outputting the selected game presentation frame stored in the frame buffer to a display device.
3. The method of claim 1, further comprising:
 - discarding the selected game presentation frame stored in the frame buffer.
4. The method of claim 1, further comprising:
 - copying the frame data from selected game presentation frame stored in the frame buffer to a memory device;
 - modifying the frame data.

5. The method of claim 1, wherein the video game presentation is selected from the group consisting of a video slot game presentation, a video keno game presentation, a video poker game presentation, a video pachinko game presentation and a video black jack game presentation.

6. The method of claim 1, further comprising:
outputting the game history frame to at least one of a video display and a printer.

7. The method of claim 1, further comprising:
incorporating a player image of a player being presented the game presentation on the gaming machine into the game history frame.

8. The method of claim 1, further comprising:
incorporating game history information corresponding to the game presentation being presented on the gaming machine into the game history frame.

9. The method of claim 8, wherein the game history information is selected from the group consisting of player tracking information, player identification information, a date, a time, an amount wagered, an amount won, an amount lost, a game denomination, random numbers generated, a game payable, a game name, game specific information and critical data.

10. The method of claim 1, wherein the game history frame contains frame data substantially identical to a game presentation frame data used in the game presentation.

11. On a gaming machine including a master gaming controller and a non-volatile storage device, a method of preserving a game history, the method comprising:

capturing at least one game history frame wherein the game history frame corresponds to one of a sequence of frames used in a game presentation controlled by the master gaming controller on the gaming machine;

generating a game history frame signature to unambiguously identify the game history frame using game history frame data comprising the game history frame;

storing the game history frame data to the non-volatile storage device; and

displaying another frame in the sequence of frames without capturing it.

12. The method of claim 11, further comprising:
capturing game history information.

13. The method claim 11, wherein the game history frame signature includes at least one of a CRC, a checksum and a hash value.

14. The method of claim 11, wherein the non-volatile storage device is at least one of a battery powered RAM, a flash memory, a hard drive and a mass storage device.

15. The method of claim 11, wherein the game presentation is selected from the group consisting of a video slot game presentation, a

video keno game presentation, a video poker game presentation, a video pachinko game presentation and a video black jack game presentation.

16. The method of claim 11, wherein the game history frame
5 data includes image data.

17. The method of claim 11, wherein the non-volatile storage device is located outside the gaming machine.

10 18. The method of claim 11, further comprising:
transmitting the at least one game history frame to a location
outside of the gaming machine.

15 19. The method of claim 11, further comprising:
printing the game history frame.

20 20. The method of claim 11, further comprising:
applying a color reduction algorithm to the game history frame
data.

21. The method of claim 11, further comprising:
applying a compression algorithm to the game history frame data.

25 22. The method of claim 11, further comprising:
applying an encryption algorithm to the game history frame data.

23. The method of claim 11, further comprising:
appending the game history frame signature to the game history
frame data.

24. The method of claim 11, further comprising:
checking the memory available in the non-volatile storage device;
and
5 when the memory is full,
removing the oldest game history frame data.

8 *13*
25. A method of playing back a game history from a game
presentation displayed on a gaming machine, the method comprising:
10 retrieving the game history from a game history database wherein
the game history includes at least one game history frame corresponding
to one of a sequence of frames used in the game presentation displayed
on the gaming machine;
validating game history frame data comprising the game history
15 frame using the game history frame signature; and
displaying the game history frame to a display device.

26. The method of claim 25, wherein the game history database
includes at least one game history frame from at least 10 different game
20 presentations.

27. The method of claim 25, wherein the game history database
includes a first game history frame from a first game presentation
corresponding to a first type of game and a second game history frame
25 from a second game presentation corresponding to a second type of game
said first type of game different from said second type of game.

28. The method of claim 27, wherein a single game history
frame playback code is used to display the first game history frame

corresponding to the first type of game and the second game history frame corresponding to the second type of game.

29. The method of claim 25, wherein the display device is
5 mounted to the gaming machine.

30. The method of claim 25, wherein the display device is physically separate from the gaming machine.

10 31. The method of claim 25, further comprising:
locating the game history frame corresponding to the game presentation in the game history database.

15 32. The method of claim 25, wherein the game history frame includes player identification information, game history information, game specific information or critical data.

20 33. The method of claim 25, further comprising:
decrypting the game history frame data.

34. The method of claim 25, further comprising:
uncompressing the game history frame data.

25 35. The method of claim 25, further comprising:
expanding the colors used to render the game history frame.

36. The method of claim 25, further comprising:
calculating a second game history frame signature from the game history frame data;

comparing the game history frame signature to the second game history frame signature; and

when the game history frame signature and the second game history frame signature are not in agreement,

5 displaying an error message to the display device.

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37. A gaming machine comprising:

a master gaming controller with processor logic used to select, to modify and to store game history frames obtained from frame sequences generated as part of a game presentation displayed on the gaming machine;

a frame buffer used to store the frame sequences; and

a non-volatile storage device used to store the selected game history frames and game history information.

38. The gaming machine of claim 37, wherein the non-volatile storage device includes at least one of a flash memory device, a battery powered memory device and a hard drive.

39. The gaming machine of claim 37, further comprising a camera used to record a player image from a player being presented the game presentation on the gaming machine.

40. The gaming machine claim 39, wherein the master gaming controller incorporates the player image into the game history frame.

41. The gaming machine of claim 37, wherein the master gaming controller incorporates game history information into the game history frame.

42. The gaming machine of claim 37, wherein the game presentation is selected from the group consisting of a video slot game presentation, a video keno game presentation, a video poker game presentation, a video pachinko game presentation and a video black jack game presentation.

43. The gaming machine of claim 37, further comprising:
a communication interface used to transmit game history frames to locations outside of the gaming machine.

44. The gaming machine of claim 37, further comprising:
a printer used to print game history frames.

45. The gaming machine of claim 37, further comprising:
a display device used to display game history frames.

46. A method of preserving a history of events that transpired on a gaming machine during play of a game, the method comprising:
from a series of video frames comprising a game presentation, selecting a game history frame having critical information about the game;

temporarily storing the game history frame in a frame buffer;
capturing the game history frame in a memory device in a manner
allowing recall of the game history frame to reconstruct a game history;
temporarily storing another frame in the frame buffer from the series of video frames wherein the frame is not a game history frame;
displaying the other frame on the gaming machine; and

flushing said other frame from the frame buffer without capturing it to the memory device.

47. The method of claim 46, further comprising:
adding text describing a game event to the game history frame
5 prior to capture.

48. The method of claim 46, further comprising:
generating a game history frame signature from data in the game history frame.

49. The method of claim 48, further comprising:
10 associating the game history frame signature to the game history frame.

50. The method of claim 46, further comprising:
playing back a game history including the game history frame together with other game history frames.

51. In a gaming machine including a master gaming controller, a display device and a memory device, a method of capturing a graphical information, the method comprising:

generating a sequence of video frames used in a video presentation
20 controlled by the master gaming controller on the gaming machine wherein each video presentation frame is stored in a frame buffer;
selecting a video presentation frame stored in the frame buffer from the sequence of video presentation frames;
storing the selected video presentation frame in the memory device
25 outputting the sequence of frames to the display device.

52. The method of claim 51, wherein the video presentation includes a maintenance video presentation and game service presentation.

53. In a gaming machine including a master gaming controller and a display device, a method of generating a game presentation, the method comprising:

5 retrieving one or more game history frames stored in a memory device wherein the game history frames contains game history information from one or more previous games;

generating a sequence of game presentation frames used in a video game presentation controlled by the master gaming controller on the gaming machine;

10 incorporating game history frame data from the one or more game history frames into the one or more of the sequence of game presentation frames used in the video game presentation;

15 outputting the sequence of game presentation frames used in the video game presentation to the display device.

54. The method of claim 53, wherein the memory device is located on the gaming machine.

20 55. The method of claim 53, wherein the memory device is located outside of the gaming machine.

25 56. The method of claim 53, wherein a first previous game is played on the gaming machine and second previous game is played on a second gaming machine.

57. The method of claim 53, further comprising:
creating a bonus game scenario from the game history information.

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